

CLAIM AMENDMENTS

Claims 1-18 are currently pending. Please amend claims 1-2, 13 and 15. No new matter is introduced. The claim listing below will replace all prior versions of claims in the application.

1. (Currently Amended) A method for processing data comprising:
 - (a) converting a stream of synchronous serial data associated with a source time slot in a time-division multiplexing frame into a plurality of parallel data units;
 - (b) constructing, during a synchronization interval, at least one subpacket in memory from the plurality of parallel data units;
 - (c) storing memory context information, including a destination time slot identifier, for each subpacket associated with the source time slot in a time-division multiplexing frame;
 - (d) constructing a data packet in memory, the data packet including at least one synchronization tag identifying the synchronization interval, a plurality of subpackets, and the respective memory context information associated with each of the subpackets; and,
 - (e) providing the data packet to a receiving mechanism.
2. (Currently Amended) The method of claim 1 wherein the receiving mechanism comprises an asynchronous switch and the method further comprises:
 - (f) receiving from the asynchronous switch the data packet, including a plurality of subpackets, at a destination and disassembling the data packet into subpackets, each subpacket associated with a destination time slot identifier.
3. (Original) The method of claim 2 wherein (f) comprises:
 - (f1) directing a subpacket into a play-out memory buffer based on the destination time slot identifier associated with the subpacket.
4. (Original) The method of claim 2 wherein (f) comprises:
 - (f1) directing a subpacket into a location within a play-out memory buffer based on the synchronization tag associated with the subpacket.

5. (Original) The method of claim 2 wherein (f) comprises:
 - (f1) determining a number of subpackets contained within the packet.
6. (Original) The method of claim 1 wherein the memory context comprises time slot identification data.
7. (Original) The method of claim 1 wherein the memory context comprises destination queue identification data.
8. (Original) The method of claim 1 wherein the memory context comprises enable data for enabling a data stream.
9. (Original) The method of claim 1 wherein the packet further comprises data identifying the number of subpackets contained therein.
10. (Original) The method of claim 1 wherein the asynchronous switch comprises a plurality of destination ports and the packet further comprises data identifying to which of the destination ports the packet will be supplied.
11. (Original) The method of claim 2 wherein (c) comprises:
 - (c1) storing memory context information for subpackets associated with each of a plurality of different source time slots.
12. (Original) The method of claim 11 wherein (c) comprises:
 - (c2) maintaining associations between a plurality of source time slot identifiers and a plurality of destination time slot identifiers.
13. (Currently Amended) A method for processing data comprising:
 - (a) converting a plurality of synchronous serial data streams, each associated with a source time slot, into parallel data units;

- (b) constructing, in ingress memory, at least one subpacket from the parallel data units associated with one of the source time slots,
- (c) retrieving ingress context data associated with the subpacket, the ingress context data comprising a destination time slot identifier, a queue identifier, and an enable variable variable;
- (d) constructing, in each of a plurality of queues, a data packet from subpackets and ingress context data associated with multiple source time slots, the subpackets within the data packet completed within a synchronization interval, the data packet further comprising i) at least one synchronization tag identifying the synchronization interval, and ii) data identifying the number of subpackets contained in the packet; and
- (e) upon completion of a data packet, providing the data packet to the receiving mechanism.

14. (Original) The method of claim 13 wherein (c) comprises:

- (c1) upon completion of a subpacket, reading from an ingress context memory the ingress context data.

15. (Currently Amended) A method for processing data comprising:

- (a) providing an apparatus having synchronization logic and an asynchronous switch for routing synchronous signals among a synchronous network interface and an asynchronous network interface and synchronization logic;
- (b) receiving a plurality synchronous serial data streams each from a different source time slot in a time-division multiplexing frame;
- (c) constructing a data packet from a plurality of subpackets each derived from one the synchronous serial data streams and a respective memory context associated with each subpacket; and
- (d) routing the packet through the asynchronous switch to one of the asynchronous network interface and the synchronous network interface.

16. (Original) A method for processing data comprising:

(a) receiving a data packet comprising a plurality of subpackets and ingress context data associated with multiple source time slots, the subpackets within the data packet completed within a synchronization interval, the data packet further comprising i) at least one synchronization tag identifying the synchronization interval, and ii) data identifying the number of subpackets contained in the packet;

(b) writing a subpacket into one of a plurality of playout buffers within an egress memory based on context data associated with the subpacket;

(c) writing the subpacket to a position within one of the plurality of playout buffers in accordance with the synchronization interval identified by the synchronization tag plus a fixed address offset; and

(d) sequentially reading the subpackets from the playout buffer.

17. (Original) The method of claim 16 further comprising:

(e) converting the data in the subpacket into serial synchronous data.

18. (Original) The method of claim 16 wherein the context data associated with a subpacket comprises a destination time slot identifier and wherein (b) comprises:

(b1) writing a subpacket into one of a plurality of playout buffers within the egress memory in accordance with the destination time slot identifier.